XVII.—THE FOOD OF THE BLIND SNAKE, (TYPHLOPS ACUTUS BOULENGER).

As far as I am aware nothing definite appears to be known about the diet of the Typhlops in general. Wall (Journ. B.N.H.S. xxv, p. 375) merely makes a general statement, They live for the most part beneath the soil, and subsist upon worms, grubs and insects.' The usual habitat of the various species, at least during the monsoon months, under stones and in decaying timber has often led me to the belief that Typhlops lives principally on the eggs, pupae and larvae of ants. Incidentally, such habitats are common to ants during the same period as they are often swamped out of their underground nests, and is the best period to collect series of these Hymenoptera for research work. On September 12 Mr. H. Abdulali brought in a specimen of T. acutus which on being put into a preservative vomited what it had eaten. An examination of the substance revealed that it was composed of nothing but the eggs and pupae of ants. This fact confirms my original belief so far as this large species is concerned. The question naturally arises as to how the Typhlops is able to obtain the eggs and pupae from the formicid owners which are very often very pugnatious and attack everything that disturbs their peace.

Bombay Natural History Society, Bombay, September 16, 1942.

C. McCANN.

XVIII.—THE KING COBRA (NAIA HANNAH) IN CAPTIVITY.

Ditmars in his Snakes of the World has given a rather detailed account of King Cobra (Naia hannah) which is regarded by him as the star snake of the Indo-Malayan area. Interesting observations on the feeding habits of this cannibalistic serpent are also made by Boulenger in the popular book The London Zoo.²

The King cobra has been known to occur in the Cochin State forests for over 23 years, and the State Zoo at Trichur has always had one or more specimens in captivity during this period. The first specimen was captured from Kanhirapilly in 1919 and lived for over twelve years in captivity. It is reported that the authorities then had great difficulty in feeding this snake as they had no idea for some months that it lived upon the common rat snake. But, once the proper prey was discovered, there was no difficulty in keeping the snake in captivity. The King Cobra was also regarded as very rare in the Cochin forests till 1936, when as many as three specimens were procured for the Zoo, one from Chalakudy and one each from Pattikad and Thanikudam, localities not far from Trichur. Specimens were also collected in the years 1937 and 1938 from other adjacent localities. But none of these lived in the Zoo for more than a year and their deaths were attributed to injuries received during capture and in one case probably due to in-

¹ New York, The Macmillan Company, 1937.

² London, J. M. Dent & Sons, Ltd., 1937.

anition caused by complete abstinence from food. This young snake, unlike others that broke their self-imposed fasts after some days or months of captivity, persisted in refusing food until at last

even artificial feeding with beaten eggs was of no avail.

The loss of a number of specimens made me bestow careful attention on the surviving ones. The dates of feeding were noted in each case and daily observations were made to find out whether the snakes were showing signs of ill health. While most specimens resorted to hunger strike when put under artificial conditions, an apparently healthy snake, captured from Vellanskara Estate, after one year of captivity, during which period there was no difficulty at all in feeding it, developed a strange illness. It was first noticed when the snake ceased to shed its skin, the periodical renewal of which is essential for the health and activity of reptiles. All attempts to induce the snake to cast its skin by making it pass through the granite locks kept in the cage were without success and the condition persisted till it ended fatally.

There was only one more specimen left in the Zoo and this in its turn began to show signs of inactivity and long intervals in shedding its skin after an year of captivity. The snake was also continuously off its feed for over two months and judging from previous experience its life was evidently in danger. The only course open to the Zoo staff was to peel off the dead skin by artificial means. One of the experienced keepers volunteered to carry out the operation and curiously enough the snake seemed to like it very much. The snake regained its activity when the dead slough was removed, and

before long captured a live rat snake as usual.

After about six months of normal life the condition again recurred. This was during the rainy season and the chillness of the weather seemed to add to its inactivity. The idea of warming the snake by some arrangement suggested itself and was carried out with complete success. The snake appreciated the amenity of artificial heating of its cage and readily coiled itself near the improvised oven. After a couple of days the scales began to come off, the snake started moving about and was evidently in search of food. A smallsized rat snake kept pressed to the cage by a long stick whetted its appetite and was readily caught. Larger specimens given during the succeeding weeks were caught without difficulty and the snake again became the unique exhibit of the reptile house attracting the usual crowd on feeding days. The process of removing skin by artificial means was resorted to a third time during the hottest part of the year when the snake again became very inactive and refused its feed.

The experience in keeping King Cobras in the Zoos has thus led me to think that most of these giant reptiles find it difficult to slough of their own accord after some months of captivity and that, unless efforts are made to remove the epidermis artificially, the snakes

become ill, refuse to capture their prey and die.

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July 6, 1942.